

## INTERNATIONAL SEARCH REPORT

International application No.  
PCT/SE 2004/001603

## A. CLASSIFICATION OF SUBJECT MATTER

IPC7: C23C 14/56, C23C 14/30, C23C 14/16, C23C 30/00  
According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC7: C23C

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

SE, DK, FI, NO classes as above

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

EPO-INTERNAL, WPI DATA, PAJ

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category* | Citation of document, with indication, where appropriate, of the relevant passages  | Relevant to claim No. |
|-----------|---|-----------------------|
| X         | US 4763601 A (SEISHIRO SAIDA ET AL),<br>16 August 1988 (16.08.1988), column 1,<br>line 56 - line 64; column 3, line 18 - line 28;<br>column 5, line 55 - line 57, column 7, line 46 -<br>column 8, line 16; column 8, line 67 - column 10,<br>line 11; figure 6<br><br>-- | 1-12                  |
| X         | EP 0570618 A1 (NISSIN ELECTRIC COMPANY, LIMITED),<br>24 November 1993 (24.11.1993), column 1,<br>line 5 - column 9, line 44; column 14,<br>line 29 - column 15, line 12, figure 1<br><br>--   | 1,12                  |
| A         | US 5429843 A (KATSUHIKO MASAKI ET AL), 4 July 1995<br>(04.07.1995), column 3, line 29 - line 31<br><br>--   | 1,2,12                |

 Further documents are listed in the continuation of Box C. See patent family annex.

- \* Special categories of cited documents
- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier application or patent but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

- "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "V" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
- "&" document member of the same patent family

Date of the actual completion of the international search  
15 February 2005Date of mailing of the international search report  
16 -02- 2005Name and mailing address of the ISA/  
Swedish Patent Office  
Box 5055, S-102 42 STOCKHOLM  
Facsimile No. + 46 8 666 02 86Authorized officer  
Ingrid Grundfelt/MP  
Telephone No. + 46 8 782 25 00

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**C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT**

| Category* | Citation of document, with indication, where appropriate, of the relevant passages   | Relevant to claim No. |
|-----------|--|-----------------------|
| A         | <p><b>PATENT ABSTRACTS OF JAPAN</b><br/>vol. 014, no. 334,<br/>18 July 1990 (1990-07-18)<br/>&amp; JP 2122064 A (SUMITOMO METAL IND LTD),<br/>9 May 1990 (1990-05-09)<br/>abstract</p> <p>---</p> <p>-----</p> | 4-9                   |

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**INTERNATIONAL SEARCH REPORT**  
Information on patent family members

30/01/2005

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|    |         |    |            |    |          |     |            |
|----|---------|----|------------|----|----------|-----|------------|
| US | 4763601 | A  | 16/08/1988 | DE | 3786800  | D,T | 10/02/1994 |
|    |         |    |            | EP | 0305573  | A,B | 08/03/1989 |
| EP | 0570618 | A1 | 24/11/1993 | DE | 69215077 | D,T | 06/03/1997 |
|    |         |    |            | JP | 5320906  | A   | 07/12/1993 |
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| US | 5429843 | A  | 04/07/1995 | DE | 69220566 | D,T | 19/02/1998 |
|    |         |    |            | EP | 0572673  | A,B | 08/12/1993 |
|    |         |    |            | JP | 5320874  | A   | 07/12/1993 |
|    |         |    |            | JP | 6052257  | U   | 15/07/1994 |
|    |         |    |            | WO | 9310275  | A   | 27/05/1993 |
|    |         |    |            | KR | 166098   | B   | 15/01/1999 |

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